#### **ADA Approved Diabetes Programs**

The following is a list of VA facilities with ADA recognized diabetes education programs (as of May 2003). These programs meet the National Standards for excellence in diabetes education. If your facility has an approved program and is not listed below, please contact Mandi Klamerus at mandi.klamerus@med.va.gov. We would like to have a complete VHA list.

State	Facility	State	Facility	
AR	Central Arkansas Veterans Healthcare System	NJ	VA New Jersey Health Care System (Lyons)	
C A	(Little Rock)	NM	New Mexico VA Health Care System (Albuquerque)	
CA	San Francisco VAMC	NY	VA Western New York Healthcare System (Batavia)	
CT	VA Connecticut Healthcare System (West Haven)	NY	VA Western New York Healthcare System (Buffalo)	
DE	Wilmington VA Medical Center	NY	Northport VAMC	
DC	Washington DC VAMC	NY	VA Healthcare Network Upstate New York (Syracuse)	
FL	James A. Haley VAMC (Tampa)	NY	Stratton VAMC (Albany)	
FL	James A. Haley VAMC (Orlando)	ОН	Louis Stokes Cleveland VA (Brecksville)	
FL	North Florida / South Georgia Veterans Health System (Daytona)	ОН	Louis Stokes Cleveland VA (Cleveland)	
FL	North Florida / South Georgia Veterans Health	PA	Wilkes-Barre VAMC	
	System (Gainesville)	PA	Wilkes-Barre VAMC (Sayre Outpatient Clinic)	
FL	North Florida / South Georgia Veterans Health System (Jacksonville)	PA	Wilkes-Barre VAMC (Allentown Outpatient Clinic)	
FL	North Florida / South Georgia Veterans Health	RI	Providence VAMC	
	System (Lake City)	TX	VA North Texas Health Care System (Bonham)	
FL	North Florida / South Georgia Veterans Health System (Ocala)	TX	VA North Texas Health Care System (Dallas VAMC)	
FL	North Florida / South Georgia Veterans Health System (Tallahassee)	TX	VA North Texas Health Care System (Fort Worth Outpatient Clinic)	
IN	Adam Benjamin Jr. Outpatient Clinic (Crown Point)	TX	South Texas Veterans Health Care System (Audie L. Murphy Division)	
MD	VA Maryland Health Care System (Baltimore VAMC)	TX	South Texas Veterans Health Care System	
MA	Northampton VAMC (Leeds)		(Frank M. Tejeda Outpatient Clinic)	
MA	VA Boston Healthcare System (West Roxbury)	VA	Hampton VAMC	
MA	VA Boston Healthcare System (Brockton)	VA	Hunter Holmes McGuire VA Medical Center (Richmond)	
MA	VA Boston Healthcare System (Boston)	VA	Salem VAMC	
MI	John D. Dingell VAMC (Detroit)	VT	White River Junction VA Medical	
NE	VA Nebraska-Western Iowa Health Care System (Grand Island)	WV	Louis A. Johnson VAMC (Clarksburg)	
NE	VA Nebraska-Western Iowa Health Care System	WV	Martinsburg VAMC	
	(Lincoln)	WI	Clement J. Zablocki VAMC (Milwaukee)	
NE	VA Nebraska-Western Iowa Health Care System (Omaha)	WI	William S. Middleton Memorial Veterans Hospital	
NH	Manchester VAMC			
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**New Research Suggests that Most People with Diabetes** Should be on a Statin

Rod Hayward, MD Director, QUERI-DM Research Coordinating Center

 $\mathsf{T}$ n the summer of 2002, one of ■ the most important studies on the medical treatment of diabetic patients was published.1 Simply put, this study suggests that most people with known coronary artery disease (CAD) or diabetes should be put on a moderate dose of a statin (40 mg of Simvastatin), regardless of their LDL-cholesterol (LDL-C) level. For years, there has been controversy regarding the best LDL-C treatment goal, but now it seems that for high-risk patients, putting them on a statin may be more important than worrying about their LDL-C level.

The MRC/BHF Heart Protection Study randomized over twenty thousand UK adults (40-80 years old) who had a known history of coronary artery disease or diabetes to receive either (1) 40 mg of simvastatin or (2) placebo. The mean patient follow-up was 5 years. Overall, treatment with 40 mg of a statin decreased mortality from 14.7% to 12.9%. This means that for every 55 to 56 patients treated with a moderate dose statin, one death was prevented every 5 years. In addition, for every 18 to 19 patients treated, one major vascular event was also prevented (such as a heart attack or stroke). Such benefits have been previously reported in high-risk patients with elevated LDL-C levels, but what makes the Heart Protection Study groundbreaking is that it is the first study that is large enough to look across the full LDL-C spectrum. Surprisingly, both the relative and absolute benefits of using a statin

were about the same for those with However, when combined with prea high LDL-C and those with a lower LDL-C (below 115mg/dl). Indeed, statins was predictive of substantially greater benefit.

The Heart Protection Study also reinforces previous research that suggests that statins are amazingly well tolerated and safe. Serious drug induced hepatitis or myopathy was extremely rare, raising some to question the current recommendations of routinely checking liver function tests in such patients.

There are a couple of caveats that should be mentioned. The patients in this study were at very high risk

vious research, we believe that the Heart Protection Study supports the neither baseline LDL-C levels nor recommendation of using a statin biological response of LDL-C to for most people with diabetes or known CAD, regardless of the patient's LDL-C level. One approach would be to prescribe 40 mg tablets of Lovastatin or Simvastatin and have the patient take one-half tablet for the first 1-2 weeks and then advance to the full 40 mg dose if no adverse effects are noted. Whether there is benefit in giving higher doses of statins or combining anti-lipid therapies (either empirically or by titrating treatment to achieve a particular LDL target) will be an important area for future investigation.

Use of a statin in those with known cardiovascular disease or diabetes saves lives.

Whether patients will benefit from empiric use of higher doses of statins or from titrating medications to achieve some predetermined LDL-C treatment goal (such as <100mg/dl) is currently unknown.

for major cardiovascular complications and death. Although most patients with diabetes are at high cardiovascular risk, there are patients with diabetes who are at much lower-risk, such as younger patients (<40 years) without other risk factors (especially type 1 and nonobese type 2 patients early in their disease). Therefore, caution should be used in generalizing these results to such patients. Also, although statins are very safe when used in the average patient, much greater caution must be used when patients have baseline liver disease or when used in combination with some other medications (such as fibrates or medications that affect the cytochrome P450 pathway).

## **Take-Home Points**

Use of a statin in those with known cardiovascular disease or diabetes saves lives.

Whether patients will benefit from empiric use of higher doses of statins or from titrating medications to achieve some predetermined LDL-C treatment goal (such as <100mg/ dl) is currently unknown.

<sup>1</sup>Heart Protection Study Collaborative Group. MRC/BHF Heart Protection Study of cholesterol lowering with simvastatin in 20,536 high-risk individuals: a randomized placebo-cotrolled trial. Lancet 2002; 360: 7-22.

## **Evaluating Reasons for Failures to Translate Diabe**tes Lipid Guidelines into **Practice**

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Tmproving control of hyper ■ lipidemia among patients with diabetes is an ongoing goal of QUERI-DM. Controlling hyperlipidemia contributes to reduction of a number of diabetes complications. Guidelines recommend screening for low-density lipoprotein (LDL) at least every two years and achieving appropriate LDL levels. Progress has been made in translating diabetes guidelines into practice (in FY2001, 90% had an LDL measure done within the last two years, and for 68% the last LDL was <130, Source: Office of Quality and Performance, FY2001 Network Performance Report). There is limited information about barriers to translation among patients who fail quality standards. We set out to identify possible barriers by examining medical record documentation for possible explanations for failure to achieve LDL goals.

## Methods

We used a VA-wide diabetes registry to identify patients who had not met quality standards for hyperlipidemia management in two large Midwest VA healthcare systems. We found that of 1,154 patients, there were 307 (27%) who had an LDL>=130 mg/dL. We then examined the medical records of these patients regarding medication treatment for hyperlipi-

failure to meet performance measures. An appropriate clinical action to a high LDL was found for 52% (159 of 307). Appropriate actions included: medication was started or increased, a repeat LDL was within range, or they had contraindications to medications. For those with no indication of appropriate actions (148 of 307 or 48% of those with a high LDL), we identified whether there were documented explanations for failure to achieve a lower LDL. We also reviewed medical records of randomly selected patients who had no LDL value recorded for two years (N=77).

#### Results

Among the 148 patients with high LDL and no indication of appropriate treatment, 35 (24%) had one or more documented explanations for failure to achieve lower LDL values. Explanations (some persons had more than one reason documented) included documented refusal of medication (N=8), documented non-adherence (N=5), active care outside the VA (N=6), no PCP visit after the high LDL (N=16), other intervention (e.g., diet, exercise) (N=12), and lipid management was low priority or difficult to address (N=8) (included in this category were the presence of terminal conditions, other competing serious conditions, and social issues). For the remaining 76% (N=113) patients with a high LDL, there was no indication of why the clinician did not initiate or increase treatment for hyperlipidemia.

demia, contraindications to Among the 77 cases with no treatment, and explanations for LDL, 40 (52%) had one or more documented explanations for not screening. The no-LDL group had more adherence problems than the high-LDL group (17% vs. 9%) and was more likely to have had a primary source of care outside VA (26% vs. 14%).

Among those patients who

failed to meet the LDL outcome

# Discussion

measure of less than 130, we found that 52% did have an appropriate response to their high LDL. Among the rest, we identified potential barriers for about 24%. Of note, an important reason for inaction was lack of a follow-up visit, an area possibly remediable through translation efforts. For those with no LDL screening, we found that about half had possible explanations for this gap in care. For both the no LDL group and the high LDL group with no appropriate action, a large proportion had no reasons documented in the medical record for failure to meet quality standards easily identified through the medical record. Therefore, other designs will need to address reasons for the lack of appropriate clinical action.

Identifying reasons for translation failures is imperative for advancing quality improvements efforts. While this was a small study, the methods could be applied to studying translation failures more generally, but should be enhanced with additional patient and clinician information to further assess the role of clinical inertia.

## **VISN 10 – Monitoring Health** via the Internet

Scott Ober, MD, MBA: Clinical Manager, Primary Care (Louis Stokes Cleveland VA Medical Center)

anagement of patients with chronic conditions, such as heart disease, depression, and diabetes, is often a challenge for health care providers. Over the past several years, Internetbased home telemonitoring systems have become available to assist patients and providers with the management of these chronic diseases. These systems give patients the ability to easily exchange data (e.g. blood pressure, weight, blood glucose) with their providers as well as providers the ability to easily monitor their patients from remote sites.

# **Past Findings**

Two years ago, the Louis Stokes Cleveland VA Medical Center conducted a pilot study to examine the feasibility of using a unique Internet-based system to transmit glucometer data between patients and providers.

Seventeen patients with type 2 diabetes were enrolled for a fourweek period. Thirteen of these patients had never used the Internet at home (and twelve did not have a computer at home). Each patient was provided with a Precision QID™ glucometer and patients without access to a computer were provided with WebTV. Each patient was then assigned to a nurse case manager and instructed by the case manager to transmit data, from their glucometer, at regular intervals using either WebTV or a PC. (Data were directly uploaded from the glucometer to a secure website via their home phone line.) Once the data were uploaded, the website displayed the

data to patients and providers in with education and self-managetables, charts, and graphs. Any separate report. The nurses then reviewed the data and, in conjunction with a physician, made therapeutic recommendations as needed.

The mean (median) number of transmissions was 14.7 (9). Overall, 94% of the patients found the Internet system convenient and helpful. Results were particularly striking given the fact that 76% of the patients had never used the Internet at home computer. The majority of the patients reported that the system worked well most or all of the time. Approximately 94% preferred this type of care to their usual care and 100% would like to continue using the system.

This pilot study demonstrated that an Internet-based system can successfully be used to transmit patient data to a remote website for immediate review by health care providers.

### **Future Direction**

The Louis Stokes Cleveland VA Medical Center has recently submitted a VISN 10 Venture Capital Proposal to study telemedicine, using the Health Buddy® device, in patients

with chronic pain, depression, and diabetes.



The Health Buddy<sup>®</sup>, developed by the Health Hero Network®, is a small portable device that allows patients to send and receive health information on a daily basis. The device simply connects to the Internet using a home telephone line. Patients are provided

ment information and are asked hypoglycemic and hyperglycemic to respond to guestions (such episodes were displayed on a as: Did you remember to take your medications today? Did you check your feet today?) on the display screen by pressing one of four blue buttons on the device. Patient responses are then uploaded to a secure website where providers have immediate access to this health information and can follow-up with the patient if necessary.

The device has been used in several health centers across the country, including Mercy Health and 71% did not own a home Center in Laredo, Texas. Mercy Health compared 1999 utilization data (when the Health Buddy® was not being used) to 2000 utilization data (when the Health Buddy® was being used) for patients enrolled in their telemedicine disease management program. Inpatient admissions were reduced by 32% for patients with diabetes. Physical and mental health status, as measured by the SF-12, improved significantly and there was substantial cost-savings.

> The Health Buddy® device is already being piloted in the VA. VISN 8 has incorporated this innovative device into their disease management programs for the last several years and now follows hundreds of patients with chronic diseases such as diabetes mellitus, congestive heart failure, COPD, and depression. Patients enrolled in VISN 8's studies have shown reductions in hospital admissions, ER visits, and medication prescriptions. VISN 10 hopes to build on these successes and examine intermediate outcomes such as hemoglobin A1c and blood pressure levels for patients using the Health Buddy® device.

Note: The VA does not have financial interest in any of the innovations mentioned above. Health Buddy® and Health Hero Network® are trademarks of Health Hero Network, Inc. and/or its affiliates